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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/508,831	09/23/2004	Graham Pring	07810.0116-00	3783
22852	7590	03/21/2007	EXAMINER	
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413			KLEMANSKI, HELENE G	
ART UNIT		PAPER NUMBER		1755
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE		
3 MONTHS	03/21/2007	PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/508,831	PRING ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Helene Klemanski	1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 08 January 2007.  
 2a) This action is FINAL. 2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-10 and 12-39 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-10 and 12-39 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Amendment***

1. None of the claims have been amended, none of the claims have been deleted and no new claims have been added. Hence, claims 1-10 and 12-39 are pending in the application.
2. The provisional obviousness-type double patenting rejection over copending application SN 10/899,315 as set forth in the previous Office Action dated August 8, 2006 has been overcome and is now withdrawn since this application is now abandoned.
3. The 102(b) rejection over Chapman et al. (US 4,227,920) with respect to claims 1-3, 6-10, 12-14, 16-22, 24-28 and 37-39 as set forth in the previous Office Action dated August 8, 2006 has been overcome by applicant's arguments and is now withdrawn. The 102(b) rejection over Chapman et al. with respect to claims 29 and 31-25 is being maintained. See rejection and response to arguments below.
4. The 102(b) rejection over Maynard (US 3,857,781) with respect to claims 1-10 and 12-23 as set forth in the previous Office Action dated August 8, 2006 has been overcome by applicant's arguments and is now withdrawn. The 102(b) rejection over Maynard with respect to claims 28-34 is being maintained. See rejection and response to arguments below.

***Terminal Disclaimer***

5. The terminal disclaimer filed on January 8, 2007 disclaiming the terminal portion of any patent granted on this application, which would extend beyond the expiration date of U.S. Patent No. 6,808,559 has been reviewed and is accepted. The terminal disclaimer has been recorded.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 31-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 31-36 are considered vague and indefinite since they improperly depend from the product by process claims of 28-30. It is the examiner's position that claims 28-30 are not process claims per se but product by process claims. The examiner suggests the language "The hydrous kaolin pigment of any one of claims 28, 29, or 30" in place of the phrase "The product of the process of claims 28, 29, or 30" to overcome this rejection.

***Double Patenting***

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory

Art Unit: 1755

obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Omum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 1-10 and 12-39 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 15, 47-52, 57, 61, 67 and 69 of copending Application No. 10/511,203. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application overlap said copending claims and would be obvious thereby.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicant's claim language "a titania concentration of less than or equal to about 0.35%" defines no lower limit and in fact includes zero% as the lower limit. See *In re Mochel*, 176 USPQ 194 (CCPA 1974). Therefore, it is the examiner's position that applicant's claims are encompassed by the above copending claims.

***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 29 and 31-35 are rejected under 35 U.S.C. 102(b) as being anticipated by Chapman et al. (US 4,227,920).

Chapman et al. teach a method for improving the whiteness and brightness of kaolin clay that contains discoloring agents such as titanium salts comprising: (1) forming an aqueous suspension of the clay to be beneficiated; (2) deflocculating the aqueous clay suspension; (3) passing the deflocculated aqueous clay suspension through a magnetic separator; (4) further deflocculating the aqueous clay suspension; (5) selectively flocculating the clay from the suspension; (6) removing the supernatant liquid from the flocculated clay and (7) recovering the clay from the selectively flocculated clay. The deflocculated clay may be beneficiated to remove particles greater than 325 mesh prior to passing through the magnetic separator (i.e. classifying). The recovered clay flocs may further be treated with hydrogen peroxide (oxidant), acid flocced and leached. Chapman et al. further teach that the combination of magnetic separation and selective flocculation removes a greater portion of the colored impurities. The recovered clay flocs have a brightness in the range of 90.4-92.3 and contain particles wherein 92-95% are less than 2 $\mu$  e.s.d. The clay is used as a coating pigment or as a filler in the paper industry. See col. 1, lines 4-24, col. 2, lines 1-10, lines 25-40

and lines 50-54, col. 2, line 56 – col. 3, line 28, examples 1, 2 and 6-8, Tables 1-6 and claims 1, 2 and 13. The kaolin clay as taught by Chapman et al. appears to anticipate the present claims.

Applicant's claim language "a titania concentration of less than or equal to about 0.35%" defines no lower limit and in fact includes zero% as the lower limit. See In re Mochel, 176 USPQ 194 (CCPA 1974). Therefore, it is the examiner's position that the above reference has little titania and in fact may have 0% titania since the reference discloses that the combination of magnetic separation and selective flocculation removes a greater portion of the colored impurities such as titanium.

Furthermore, the term "about" as used by applicants in reference to the brightness permits some tolerance. The courts have stated that a teaching of 8% in a reference was seen to encompass a claim stating "at least about 10%". See In re Ayers, 69 USPQ 109 (CCPA 1946). It is the examiner's position that the phrase "having a GE Brightness of at least about 90.0, at least about 91.0 and at least about 92.0" as claimed by applicants is encompassed by Chapman et al's. brightness range of 90.4-92.3.

12. Claims 29-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Maynard (US 3,857,781).

Maynard teaches a method of removing discoloring  $TiO_2$  contaminants from kaolin clays comprising: (1) treating an aqueous kaolin clay suspension with a dispersing agent and continuing the addition of the dispersing agent to effect reflocculation of the aqueous clay suspension; (2) diluting the reflocculated slurry; (3)

treating the slurry by adding sodium chloride; (4) aging the salt treated slurry for from 1-24 hours; (5) further diluting the aged slurry; (6) adding polyacrylamine (i.e. flocculating agent) to produce a separation of the titanium-polymer flocs and the clay flocs; (7) separating out the clay flocs and (8) later processed by washing, leaching, filtering and/or drying. The above process produces kaolin clay having a brightness in the range of 93.7 to 94.7 and a titanium concentration in the range of .13-.28. See col. 1, lines 5-8 and lines 45-63, col. 3, lines 9-16 and lines 33-62, col. 4, lines 5-40, examples 3, 4, 7, 8, 12 and 13, col. 19, lines 20-29 and lines 52-54 and claim 1. The kaolin clay as taught by Maynard appears to anticipate the present claims.

The only limitation in the claims not found by the examiner is the particle size distribution. However, this limitation is considered inherent because there does not appear to be any reason why the cited reference would not contain a kaolin with applicants claimed particle size distribution since the process of making the kaolin as disclosed by Maynard is the same as that as claimed by applicants.

### ***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 1-7, 12-15, 24-39 are rejected under 35 U.S.C. 103(a) as being obvious over Golley et al. (US 2005/0098283).

The applied reference has a common inventor with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Golley et al. teach a kaolin clay pigment having a GE Brightness of at least about 89 and a Steepness of at least about 30, the value of which changes with embodiments to at least about 35, at least about 40, at least about 45 and at least about 50. Golley et al. further teach that the kaolin clay pigments are used in paper filler compositions and/or paper coating compositions to coat or fill any suitable cellulose based substrate. See paras. 0011-0027, paras. 0039-0040, para. 0044, para. 0052, para. 0054, paras. 0056-0069, examples 1 and 3, Tables 1 and 6 and claims 1, 7, 8, 11, 16, 17, 23, 24, 27, 33, 34, 39 and 47. Golley et al. fails to specifically exemplify a kaolin clay pigment

having a steepness of at least 39 and/or a brightness of 93.5 or 94 as claimed by applicants.

Therefore, it would have been obvious to one having ordinary skill in the art that the kaolin clay pigment of Golley et al. would have a steepness of at least 39 and/or a brightness of 93.5 or 94 as claimed by applicants as Golley et al. also discloses that the steepness of the kaolin clay pigment is at least about 30 and the kaolin clay pigment has a GE Brightness of at least about 89 but fails to show an example incorporating a kaolin pigment having these properties. It is the examiner's position that applicant's steepness of at least 39 would be encompassed by Golley et al's. steepness of at least 30 and that applicants GE Brightness of at least about 93.5 or 94 would be encompassed by Golley et al's. GE Brightness of at least 89.

Furthermore, it is the examiner's position that the phrase "the kaolin pigments of the present invention may also optionally exhibit a steepness of at least about 30, the value of which changes with embodiments to at least about 35, at least about 40, at least about 45 and at least about 50" (in both references) would encompass applicants limitation of a steepness of at least about 39.

15. Claims 1-7, 12-15, 24-39 are rejected under 35 U.S.C. 103(a) as being obvious over Golley et al. (US 6,808,559).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in

the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Golley et al. teach a kaolin clay pigment having a GE Brightness of at least about 89 and a Steepness of at least about 30, the value of which changes with embodiments to at least about 35, at least about 40, at least about 45 and at least about 50. Golley et al. further teach that the kaolin clay pigments are used in paper filler compositions and/or paper coating compositions to coat or fill any suitable cellulose based substrate. See col. 2, line 65 – col. 3, line 43, col. 4, lines 17-36, col. 5, lines 47-56, col. 6, line 2 – col. 8, line 34, examples 1 and 3, Tables 1 and 6 and claims 1, 7, 8, 11, 16, 17, 23, 24, 27, 33, 34, 39 and 47. Golley et al. fails to specifically exemplify a kaolin clay pigment having a steepness of at least 39 and/or a brightness of 93.5 or 94 as claimed by applicants.

Therefore, it would have been obvious to one having ordinary skill in the art that the kaolin clay pigment of Golley et al. would have a steepness of at least 39 and/or a

brightness of 93.5 or 94 as claimed by applicants as Golley et al. also discloses that the steepness of the kaolin clay pigment is at least about 30 and the kaolin clay pigment has a GE Brightness of at least about 89 but fails to show an example incorporating a kaolin pigment having these properties. It is the examiner's position that applicant's steepness of at least 39 would be encompassed by Golley et al's. steepness of at least 30 and that applicants GE Brightness of at least about 93.5 or 94 would be encompassed by Golley et al's. GE Brightness of at least 89.

Furthermore, it is the examiner's position that the phrase "the kaolin pigments of the present invention may also optionally exhibit a steepness of at least about 30, the value of which changes with embodiments to at least about 35, at least about 40, at least about 45 and at least about 50" (in both references) would encompass applicants limitation of a steepness of at least about 39.

In addition, applicant's claim language "a titania concentration of less than or equal to about 0.35%" defines no lower limit and in fact includes zero% as the lower limit. See *In re Mochel*, 176 USPQ 194 (CCPA 1974). Therefore, it is the examiner's position that both of the above references have little titania and in fact may have 0% titania since both of the references claim further beneficiation of the kaolin to remove impurities (see claim 44 and para. 0063 of US 2005/0098283 and claim 44 and col. 7, lines 13-15 of US 6,808,559).

While the above references fail to teach the same process as instantly claimed, the resulting products appear to be the same. As stated in MPEP 2113 [R-1] "[E]ven though product-by-process claims are limited by and defined by the process,

determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) (citations omitted). "The Patent Office bears a lesser burden of proof in making out a case of *prima facie* obviousness for product-by-process claims because of their peculiar nature" than when a product is claimed in the conventional fashion. In re Fessmann, 489 F.2d 742, 744, 180 USPQ 324, 326 (CCPA 1974). Once the examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. In re Marosi, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983).

### ***Response to Arguments***

16. Applicant's arguments filed January 8, 2007 have been fully considered but they are not persuasive.

Applicants argue that the Chapman et al. and Maynard references do not explicitly teach the steepness of the kaolin pigment and that the steepness of the kaolin pigment would not be inherent since the kaolin starting materials are different. The examiner agrees however, claims 29-35 do not require a steepness of the kaolin

pigment. Therefore, applicant's arguments are not commensurate in scope with the instant claims.

Applicants further argue that the Golley et al. references do not suggest or exemplify a kaolin pigment with a steepness of at least 39 as claimed by applicants. The examiner disagrees since both of the Golley et al. references clearly suggest or provide motivation to produce a kaolin pigment with a steepness of at least 30 up to at least 50 which overlaps applicants claimed steepness (see col. 4, lines 31-36 of US 6,808,559 and para. 0044 of US 2005/0098283). Furthermore, a reference can be used for all it realistically teaches and is not limited to the disclosures in its specific examples". See In re Van Marter et al 144 USPQ 421; In re Windmer et al 147 USPQ 518, 523; and In re Chapman et al 148 USPQ 711. Therefore, it is the examiner's position that the above references clearly provide a *prima facie* case of obviousness absent evidence to the contrary.

### ***Conclusion***

The remaining references listed on forms 892 and 1449 have been reviewed by the examiner and are considered to be cumulative to or less material than the prior art references relied upon in the above rejections.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helene Klemanski whose telephone number is (571) 272-1370. The examiner can normally be reached on Monday-Friday 5:30-2:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Helene Klemanski  
Primary Examiner  
Art Unit 1755

  
HK  
March 13, 2007